paragraph (b) of this section and welded or brazed piping joints are not employed in the system. If welded or brazed joints are employed, the system shall be tested in accordance with the requirements of paragraphs (c)(1) and (2) of this section except that the accumulators may be isolated from the remainder of the system.

(d) Fluid power and control systems shall be purged with an inert gas or with the working fluid and all trapped air bled from the system prior to any shipboard testing. In no case shall air, oxygen, any flammable gas, or any flammable mixture of gases be used for testing fluid power systems.

(e) Fluid control systems, such as boiler combustion controls, containing components with internal parts, such as bellows or other sensing elements, which would be damaged by the test pressure prescribed in paragraphs (c)(1) and (2) of this section may be tested at the maximum allowable working pressure of the system. In addition, all fluid control systems may be tested using the system working fluid.

§ 58.30–40 Plans.

(a) Diagrammatic plans and lists of materials must be submitted for each of the fluid power and control systems listed in § 58.30–1(a) that is installed on the vessel. Plan submission must be in accordance with subpart 50.20 of this subchapter and must include the following:

(1) The purpose of the system.

(2) Its location on the vessel.

(3) The maximum allowable working pressure.

(4) The fluid used in the system.

(5) The velocity of the fluid flow in the system.

(6) Details of the system components in accordance with § 56.01–10(d) of this subchapter.

[CGD 73–254, 40 FR 40168, Sept. 2, 1975]

§ 58.30–50 Requirements for miscellaneous fluid power and control systems.

(a) All fluid power and control systems installed on a vessel, except those listed in § 58.30–1(a), must meet the following requirements:

(1) Diagrams of the system providing the information required by § 58.30–40(a)(1) through (4) must be submitted. These are not approved but are needed for records and for evaluation of the system in accordance with § 58.30–1(a)(14).

(2) The hydraulic fluid used in the system must comply with § 58.30–10.

(3) The installed system must be tested in accordance with § 58.30–35(c)(2).

(4) All pneumatic cylinders must comply with § 58.30–30.

(5) Additional plans may be required for ''fail-safe'' equipment and for cargo hatch systems with alternate means of operation.

[CGD 73–254, 40 FR 40168, Sept. 2, 1975]

Subpart 58.50—Independent Fuel Tanks

§ 58.50–1 General requirements.

(a) The regulations in this subpart contain requirements for independent fuel tanks.

(b) Passenger vessels exceeding 100 gross tons constructed prior to July 1, 1935, may carry gasoline as fuel not exceeding 40 gallons to supply the emergency electrical system. Passenger vessels exceeding 100 gross tons constructed on or after July 1, 1935, and all emergency systems converted on or after July 1, 1935, shall use fuel which has a flashpoint exceeding 110 °F. (PMCC) for internal combustion engine units. Such vessels shall carry a sufficient quantity of fuel to supply the emergency electrical system. Refer to § 112.05–5 of Subchapter J (Electrical Engineering), of this chapter.

(c) An outage of 2 percent shall be provided on all fuel tanks containing petroleum products.

[CGFR 68–82, 33 FR 18878, Dec. 18, 1968, as amended by CGD 73–254, 40 FR 40169, Sept. 2, 1975]

§ 58.50–5 Gasoline fuel tanks.

(a) *Construction.* (1) *Shape.* Tanks may be of either cylindrical or rectangular form, except that tanks for emergency electrical systems shall be of cylindrical form.

(2) *Materials and construction.* The material used and the minimum thickness allowed shall be as indicated in Table 58.50–5(a) except that consideration will be given to other materials